

THE CLAIMS

What is claimed is:

1. A satellite transceiver for a personal computer, comprising:
 - a card that plugs into the personal computer that includes:
 - a transmitting section transmitting radio frequency signals responsive to data received from an industry standard bus in the computer, and
 - a receiving section receiving radio frequency signals and converting the received signals to data for transfer to the industry standard bus in the computer; and
 - a PCI to PCI bridge that couples industry standard buses in both the receiving section and the transmitting section with the industry standard bus in the personal computer.
2. The transceiver according to claim 1, further comprising: an auxiliary bus directly connecting the transmitting section and the receiving section without passing through the PCI to PCI bridge.
3. The transceiver according to claim 2, wherein a synchronizing signal is conveyed from the receiving section to the transmitting section via the auxiliary bus.
4. The transceiver according to claim 1, wherein the transmitting section includes a frequency synthesizer for generating the radio frequency signals.

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5. The transceiver according to claim 4, wherein the frequency generated by the frequency synthesizer is set by a controller on the card.

6. The transceiver according to claim 4, wherein the frequency generated by the frequency synthesizer is set by conveying instructions via the bus.

7. The transceiver according to claim 1, wherein the card is coupled to an external antenna system, and further comprising a connector, through which a DC source external to the card powers the antenna system.

8. The transceiver according to claim 7, wherein the transmitting section includes radio frequency modulation circuitry and the modulation circuitry is coupled to convey the radio frequency signals to the antenna system via the connector.

9. A transceiver according to claim 1, wherein the transmitting section includes radio frequency modulation circuitry and the modulation circuitry modulates the transmitted signals according to a predefined protocol in accordance with a command conveyed to the card via the industry-standard bus.

10. A transceiver according to claim 1, wherein the transmitting section includes modulation circuitry and the modulation circuitry includes an encoder that

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encodes error correction into the transmitted signals according to a predefined protocol in accordance with a command conveyed to the encoder via said industry-standard bus.

11. A transceiver according to claim I, wherein the signals are transmitted to a satellite.

12. A satellite transceiver for a personal computer, the personal computer having a USB port, the transceiver comprising:

a transmitter card that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB port; and

a receiver card that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB port.

13. The transceiver according to claim 12, wherein the transmitter card and the receiver card include respective USB interfaces, the transceiver further including a USB hub which couples the USB port to said USB interfaces via a USB bus.

14. The transceiver according to claim 12, further including an auxiliary bus directly connecting the transmitter card and the receiver card.

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15. The transceiver according to claim 14, wherein a synchronizing signal is conveyed from the receiver card to the transmitter card via the auxiliary bus.
16. The transceiver according to claim 15, wherein the transmitter card and the receiver card further comprise respective connectors coupling the cards to the auxiliary bus.
17. The transceiver according to claim 12, further including an internal DC source residing in the box for supplying power to the transmitter card and the receiver card.
18. The transceiver according to claim 12, wherein the transmitter card includes a frequency synthesizer for generating the radio frequency signals.
19. The transceiver according to claim 18, wherein the frequency generated by the frequency synthesizer is set by a controller on the transmitter card.
20. The transceiver according to claim 18, wherein the frequency generated by the frequency synthesizer is set by conveying instructions via the USB port.
21. The transceiver according to claim 12, wherein the transceiver is coupled to an external antenna system, further comprising a connector, through which a DC

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source, internal to the box, powers the antenna system.

22. A transceiver according to claim 21, wherein the transmitter card includes radio frequency modulation circuitry that is coupled to convey the radio frequency signals to the antenna system via the connector.

23. A transceiver according to claim 12, wherein the transmitter card includes radio frequency modulation circuitry and the modulation circuitry modulates the transmitted signals according to a predefined protocol in accordance with a command conveyed to the card via the USB port.

24. A transceiver according to claim 12, wherein the transmitter card includes modulation circuitry and the modulation circuitry includes an encoder that encodes error correction into the transmitted signals according to a predefined protocol in accordance with a command conveyed to the encoder via the USB port.

25. The transceiver according to claim 12, wherein the signals are transmitted to a satellite.

26. A method for transmitting and receiving signals between a satellite and a personal computer having a USB port, the method comprising steps of:
coupling a transmitter card that resides in a box external to the personal

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- computer to a USB hub through a portion of a USB bus;
- coupling the USB hub to the USB port;
- transmitting a radio frequency signal from the transmitter card responsive to data received from the USB port;
- coupling a receiver card that resides in the box to the USB hub through another portion of the USB bus;
- receiving the radio frequency signal in the receiver card; and
- converting the radio frequency signal to data for transfer to the USB port.
27. The method according to claim 26, further comprising a step of coupling the transmitter and receiver cards together directly via an auxiliary bus.
28. The method according to claim 26, further comprising steps of:
- mounting a power connector on the box, and
- powering an antenna system external to the box via the power connector.
29. The method according to claim 26, further comprising a step of determining a frequency band of the signal using the data received by the transmitter card.
30. The method according to claim 26, wherein the step of the transmitting radio frequency signal includes modulating the radio frequency signal in accordance with

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a modulation scheme determined responsive to a command conveyed via the USB port.

31. The method according to claim 26, wherein the step of the transmitting radio frequency signal includes encoding an error correction onto the radio frequency signal in accordance with an encoding scheme determined responsive to a command conveyed via the USB port.

32. A method according to claim 26, wherein the step of transmitting the radio frequency signal includes transmitting the radio frequency signal to the satellite.

33. A method according to claim 26, wherein the step of receiving the radio frequency signal includes conveying a synchronizing signal from the receiver card to the transmitter card via the auxiliary bus.

34. A method for transmitting and receiving signals between a satellite and a personal computer, the method comprising steps of:

coupling a single transceiver card to an industry-standard bus in the computer;

transmitting a radio frequency signal from the single transceiver card responsive to data from the bus; and

receiving radio frequency signal transmitted to the single transceiver card and converting the received radio frequency signals to data for transfer to the bus.

35. The method according to claim 34, further comprising a step of coupling the transmitting section and receiving sections of the transceiver card together directly via an auxiliary bus separate from the industry-standard bus.
36. The method according to claim 34, further comprising a step of mounting a power connector on the card, and powering an antenna system external to the card via the power connector.
37. The method according to claim 34, further comprising a step of determining a frequency band of the signal using the data conveyed to the card.
38. The method according to claim 34, wherein the step of transmitting the radio frequency signal includes modulating the signal in accordance with a modulation scheme determined responsive to a command conveyed via the bus.
39. The method according to claim 34, wherein the step of transmitting the radio frequency signal includes encoding an error correction onto the radio frequency signal in accordance with an encoding scheme determined responsive to a command conveyed via the bus.
40. The method according to claim 34, wherein the step of transmitting the

radio frequency signal includes transmitting the radio frequency signal to the satellite.

41. A method according to claim 35, wherein the step of receiving the radio frequency signal includes conveying a synchronizing signal from the receiving section card transmitting section via the auxiliary bus.

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